COMPARISON OF ELECTROMAGNETIC RADIATION LIMITS FOR EXTREMELY LOW FREQUENCIES IN EUROPEAN COUNTRIES

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ABSTRACT

Almost every member of modern societies constantly live in electromagnetic fields (EMF) which are much higher than those found in nature. Power lines, computer monitors, different electrical equipments, radio, television, mobile phones, microwave ovens can be given examples of these EMF sources. Their potential effects of health continue to be the subject of controversy. Extremely low frequency (ELF, 0-3000 Hz) region of spectrum is radiated by transformers, household equipments, high power lines, and by electrical goods is investigated in this study. Since more than 25 years research efforts to find a correlation between the electromagnetic field and their effects on health of human are going on, but without significant success. Generally, countries accept the standarts of International Commission on Non-Ionizing Radiation Protection (ICNIRP), World Health Organization (WHO), and European Committee for Electrotechnical Standardization (CENELEC). Some countries apply more strict limit values than above foundations. The International Agency for Research on Cancer (IARC) reviewed EMFs and cancer in June 2001, and classified magnetic fields as “possibly” carcinogenic for low frequency region. Therefore, exposure limit values of EMFs are really important. The best way is acceptance of As Low As Reasonably Achievable (ALARA) principle as long as have not exact scientific results.